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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/742,809

12/19/2000

Mohammad Faisal

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EXAMINER

ABEL JALIL, NEVEEN

ART UNIT

PAPER NUMBER

2175

DATE MAILED: 12/19/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/742,809

Applicant(s)

FAISAL, MOHAMMAD

Examiner

Neveen Abel-Jalil

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-942)
- 6) ☐ Other: _____

SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

DOV POPOVIC

DETAILED ACTION

1. In view of the Appeal Brief filed on 12-September-2003, PROSECUTION IS HEREBY REOPENED. *A new ground of rejection is set forth below.*

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Wical (U.S. Patent No. 5,930,788).

As to claim 1, Wical discloses a method for generating cross-references among categories in a knowledge base (See abstract), said method comprising the steps of:

extracting, from a plurality of documents, a plurality of themes, wherein a theme identifies subject matter contained in a corresponding document (See column 14, lines 8-42);

generating a theme strength for said themes, said theme strength reflects the amount of subject matter contained in a document for a corresponding theme relative to other themes in said document (See column 14, lines 24-42);

generating a plurality of scores (See column 9, lines 14-48, wherein “score” reads on “weight”), from said theme strengths (See column 20, claim 12 language), to identify a relative theme pair strength (See column 20, claim 12 language) for at least one pair of said themes extracted from said documents (See column 20, claim 12 language);

selecting theme pairs based on said scores (See column 11, lines 35-65);

selecting category pairs in said knowledge base (See column 11, lines 23-34) by mapping said themes of said theme pairs selected to corresponding categories of said knowledge base (See column 14, lines 24-53); and

generating a cross reference in said knowledge base between categories of said category pairs (See abstract), wherein said cross reference identifies an association between said category pairs (See column 21, claim 13 language).

As to claim 2, Wical discloses wherein the step of generating a plurality of scores (See column 9, lines 14-48, wherein “score” reads on “weight”) comprises the steps of:

generating a matrix comprising a plurality of columns and rows to form a plurality of entries, wherein each column represents one of said themes and each row represents one of said themes (See column 10, table 1); and

generating a score for at least a subset of said entries of said matrix (See column 10, lines 19-32, wherein “matrix” reads on “table”), such that a score reflects a relative theme pair strength between two themes represented by said entry for said documents (See column 11, lines 35-57).

As to claim 3, Wical discloses wherein the step of generating a score (See column 9, lines 14-48, wherein “score” reads on “weight”) for at least a subset of said entries of said matrix (See column 10, lines 19-32, wherein “matrix” reads on “table”) comprises the steps of:

calculating a plurality of products for an entry by multiplying theme strengths (See) corresponding to two themes represented by said entry for each document (See) that includes said two themes represented by said entry (See column 11, lines 35-57); and

summing said products for an entry to generate said score (See column 20, claim 12 language).

As to claim 4, Wical discloses wherein the step of selecting category pairs in said knowledge base (See abstract) comprises the steps of:

determining whether only one of said themes exist as a category in said knowledge base (See column 18, claim 3 language);

if so,

generating a new category in said knowledge base for said theme (See column 16, lines 1-28);

generating a new cross-reference relationship between said new category and a category for which one of said themes exist (See column 12, lines 11-40); and generating a new score for said new cross-reference relationship (See column 19, claim 9 language).

As to claim 5, Wical discloses wherein the step of selecting category pairs in said knowledge base (See column 8, lines 5-25) comprises the steps of:

determining whether both of said themes exist as categories in said knowledge base (See column 8, lines 5-25); if so,

determining whether a cross reference relationship exists from said category pair (See column 8, lines 49-67, and see column 9, lines 1-18);

if not,

generating a new cross-reference relationship between said category pair (See column 15, lines 24-46);

generating a new score for said new cross-reference relationship (See column 16, lines 1-28); and

if so, generating a new score for said existing cross-reference relationship (See column 19, claim 9 language).

As to claim 6, Wical discloses a system comprising:

a search and retrieval module for receiving a user query and for generating a query response including query feedback (See column 17, lines 16-32, wherein “query” reads on “inputuser interface”);

a knowledge base, coupled to said search and retrieval module, for storing relationships among terminology for use as query feedback (See column 9, lines 41-67, also see column 12, lines 42-67);

a knowledge base processing system (See column 15, lines 24-46),
coupled to said knowledge base for processing a plurality of documents and automatically extending said relationships among said terminology in said knowledge base, said knowledge base processing system for extracting, from said documents, a plurality of themes, wherein a theme identifies subject matter contained in a corresponding document, for generating a theme strength for said themes, said theme strength reflects the amount of subject matter contained in a document for a corresponding theme relative to other themes in said document (See column 20, claim 12 language, also see column 17, lines 32-45);

for generating a plurality of scores, from said theme strengths, to identify a relative theme pair strength for at least one pair of said themes extracted from said documents, for selecting theme pairs based on said scores (See column 9, lines 50-67, also see column 6, lines 47-64), for selecting category pairs in said knowledge base by mapping said themes of said theme pairs selected to corresponding categories of said knowledge base, and for generating a cross reference in said knowledge base between categories of said category pairs, wherein said cross reference identifies an association between said category pairs (See column 11, lines 23-57, also see column 8, lines 49-66).

As to claim 7, Wical discloses wherein the knowledge base processing system further for generating a matrix comprising a plurality of columns and rows to form a plurality of entries

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(See column 10, tables 1-2), wherein each column represents one of said themes and each row represents one of said themes and for generating a score for at least a subset of said entries of said matrix, such that a score reflects a relative theme pair strength between two themes represented by said entry for said documents (See column 11, lines 23-57).

As to claim 8, Wical discloses wherein the knowledge base processing system further for calculating a plurality of products for an entry by multiplying theme strengths corresponding to two themes represented by said entry for each document that includes said two themes represented by said entry, and for summing said products for an entry to generate said score (See column 14, lines 24-67).

As to claim 9, Wical discloses wherein the knowledge base processing system further for determining whether only one of said themes exist as a category in said knowledge base (See column 18, claim 3 language), if so, for generating a new category in said knowledge base for said theme (See column 16, lines 1-28), for generating a new cross-reference relationship between said new category and a category for which one of said themes exist, and for generating a new score for said new cross-reference relationship (See column 12, lines 11-40, also see column 19, claim 9 language).

As to claim 10, Wical discloses wherein the knowledge base processing system further for determining whether both of said themes exist as categories in said knowledge base (See column 8, lines 5-25);

if so, for determining whether a cross reference relationship exists from said category pair
(See column 8, lines 49-67, and see column 9, lines 1-18);

if not, for generating a new cross-reference relationship between said category pair, for
generating a new score for said new cross-reference relationship (See column 15, lines 24-46,
also see column 16, lines 1-28);

and if so, for generating a new score for said existing cross-reference relationship (See
column 19, claim 9 language).

As to claim 11, Wical discloses a computer readable medium comprising a plurality of
instructions (See column 17, lines 32-50), which when executed, causes the computer to perform
the steps of:

extracting, from a plurality of documents, a plurality of themes, wherein a theme
identifies subject matter contained in a corresponding document (See column 14, lines 8-42);

generating a theme strength for said themes, said theme strength reflects the amount of
subject matter contained in a document for a corresponding theme relative to other themes in
said document (See column 14, lines 24-42);

generating a plurality of scores (See column 9, lines 14-48, wherein “score” reads on
“weight”), from said theme strengths (See column 20, claim 12 language) to identify a relative
theme pair strength (See column 20, claim 12 language) for at least one pair of said themes
extracted from said documents (See column 20, claim 12 language);

selecting theme pairs based on said scores (See column 11, lines 35-65);

selecting category pairs in said knowledge base by mapping said themes of said theme pairs selected to corresponding categories of said knowledge (See column 14, lines 24-53); and
generating a cross reference in said knowledge base between categories of said category pairs (See abstract), wherein said cross reference identifies an association between said category pairs (See column 21, claim 13 language).

As to claim 12, Wical discloses wherein the step of generating a plurality of scores comprises the steps of:

generating a matrix comprising a plurality of columns and rows to form a plurality of entries, wherein each column represents one of said themes and each row represents one of said themes (See column 10, table 1); and

generating a score for at least a subset of said entries of said matrix, such that a score reflects a relative theme pair strength between two themes represented by said entry for said documents (See column 6, lines 25-64).

As to claim 13, Wical discloses wherein the step of generating a score for at least a subset of said entries of said matrix reads on comprises the steps of:

calculating a plurality of products for an entry by multiplying theme strengths corresponding to two themes represented by said entry for each document that includes said two themes represented by said entry (See column 14, lines 24-67).; and

summing said products for an entry to generate said score (See column 6, lines 47-63).

As to claim 14, Wical discloses wherein the step of selecting category pairs in said knowledge base comprises the steps of:

determining whether only one of said themes exist as a category in said knowledge base (See column 18, claim 3 language);

if so,

generating a new category in said knowledge base for said theme (See column 16, lines 1-28);

generating a new cross-reference relationship between said new category and a category for which one of said themes exist relationship (See column 12, lines 11-40); and

generating a new score for said new cross-reference relationship (See column 19, claim 9 language).

As to claim 15, Wical discloses wherein the step of selecting category pairs in said knowledge base (See abstract) comprises the steps of:

determining whether both of said themes exist as categories in said knowledge base (See column 8, lines 5-25);

if so,

determining whether a cross reference relationship exists from said category pair (See column 8, lines 49-67, and see column 9, lines 1-18);

if not,

generating a new cross-reference relationship between said category pair (See column 15, lines 24-46);

generating a new score for said new cross-reference relationship (See column 16, lines 1-28); and

if so,

generating a new score for said existing cross-reference relationship (See column 19, claim 9 language).

Response to Arguments

4. Applicant's arguments with respect to claims 1-15 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 703-305-8114.

The examiner can normally be reached on 8:00AM-4: 30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on 703-305-3830. The fax phone number for the organization where this application or proceeding is assigned is 703-746-7239.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Neveen Abel-Jalil
December 9, 2003


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